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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.       |
|---|-------------|----------------------|---------------------------------|------------------------|
| 10/609,113  | 06/27/2003  | Scott B. Bintrim     | DAS-101XC2                      | 6438                   |
| 23557 7590 07/03/2007<br>SALIWANCHIK LLOYD & SALIWANCHIK<br>A PROFESSIONAL ASSOCIATION<br>PO BOX 142950<br>GAINESVILLE, FL 32614-2950 |             |                      | EXAMINER<br>LUNDGREN, JEFFREY S |                        |
|   |             |                      | ART UNIT<br>1639                | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>07/03/2007         | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/609,113

Applicant(s)

BINTRIM ET AL.

Examiner

Jeff Lundgren

Art Unit

1639

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 10 May 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).


4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
MARK L. SHIBUYA  
PRIMARY EXAMINER

Continuation of 3. NOTE: (a) Applicants have presented claims 52-55 which present subject matter requiring an additional search, and new issues for examination

(c) Applicants argue that the rejection for lack of written description is improper because the claims are directed to a method of screening, "and not all the fruits (i.e., toxins) thereof." Applicants' arguments have been fully considered, but are not found persuasive. As set forth in the Final Action, the claims are overly broad because the claims are directed to all *Paenibacillus* species, even though the claims are directed to methods of screening. When comparing Applicants' disclosure and working examples to the opinions of those in the art, it is clear that Applicants' claims do not have adequate description for the claimed breadth. Applicants claims cover all "isolates" from all species of *Paenibacillus*. There is no chemical structure for the undescribed isolates, and furthermore, the isolates are selected from a vast and largely unexplored genus

Applicants argue that the rejection of the claims as being anticipated is not correct because the cited prior art is concerned with *Bacillus* isolates and not *Paenibacillus* isolates. Applicants' arguments have been considered, but are not persuasive because *P. nematophilus* is included in the *Paenibacillus* genus.

Regarding the rejection of the claims as being obvious, Applicants allege that the TSM standard has not been met. This argument is considered, however, it is not found persuasive.

As stated in the Office Action previously, Warren has identified *Bacillus* strains capable of producing pesticidal proteins and auxiliary proteins during vegetative growth, and the proteins are purified and genes encoding the proteins are cloned (see Examples 1-18). The proteins and the genes are useful in pest management programs, including lepidopteran (page 3, third paragraph; tobacco budworm in Table 14, page 32), and including rootworm (see Tables 1-10, especially Table 2, and see Example 3b). A *Bacillus cereus* isolate that was significantly active against corn rootworm was isolated and characterized. Culture supernatants were very active against Western and Northern corn rootworms and had an overall spectrum of activity that was different from that of endotoxins. Warren also teaches that there are a number of *Bacillus* species useful as pesticides, such as those listed in Table 11 on page 14, namely, *B. pulvifaciens*, and *B. macquariensis* (both are currently recognized as *Paenibacillus*; see Heyndrickx et al., and print out from [www.dsmz.de/species/sp200231.html](http://www.dsmz.de/species/sp200231.html)).

Morgan teaches the screening of bacillus isolates XptA1, XptA2, TcbA and TcdA for their toxicity as an insecticide (see page 2062, and page 2065, including Table 2).

Although Warren does not teach the specific XptA1, XptA2, TcbA and TcdA proteins, Warren's suggests a limited number of bacterial strains in Table 11. Furthermore, Morgan demonstrates the close similarity in the genes to known toxin genes, and experimentally demonstrates their usefulness of the claimed proteins as toxins. One of ordinary skill in the art would have been motivated to select the claimed *Paenibacillus* because of the benefits that other strains demonstrate over certain other isolates of the Bt toxin based on the teachings of Morgan. Therefore, the invention as a whole was prima facie obvious over the art of record at the time it was invented.